

State of West Virginia Department of Health and Human Resources

Bureau for Public Health Office of
Environmental Health Services

Standard Operating Procedures:

Stage 1 and Stage 2 Disinfectants and Disinfection
Byproducts Rules

(For use with SDWIS/State)

December 2013

Table of Contents

Rule Overview.....	3
Purpose.....	3
Resources.....	3
Required Information/Data.....	3
SECTION 1. DBPR Facility Analyte Levels (FANLs).....	4
SECTION 2. Enter DBPR Sample Schedules in SDWIS/State.....	11
SECTION 3. Add Stage 2 DBPR Schedule Type and Effective Date.....	19
SECTION 4. Add Stage 2 DBPR MCL Extension.....	23
SECTION 5. Review and maintain LRAA and RAA.....	26
SECTION 6. OEL Compliance Determination.....	30
SECTION 7. MCL Compliance Determination.....	34
SECTION 8. Monitoring and Reporting Compliance Determination.....	43
APPENDIX A: Primary DBPR Acronyms and Definitions.....	47

*State of West Virginia Department of Health and Human Resources
Bureau for Public Health Office of Environmental Health Services*

Rule Overview

West Virginia Department of Health and Human Services (WVDHHR) has primacy enforcement authority for the federal Stage 1 and Stage 2 Disinfectant and Disinfection Byproducts Rules (DBPRs). As such, WVDHHR must ensure that public water systems (PWSs) comply with DBPRs. To ensure compliance, the Central Office (CO) staff must determine PWS sample schedules, facility analyte levels (FANLs), review calculations, assign violations, and prepare and track compliance schedules. The CO uses the Safe Drinking Water Information System (SDWIS)/State to enter and maintain sample schedules, FANLs, review results, migrate violations, enter enforcement actions, enter and maintain compliance schedules, and view compliance reports. DBPRs are well-established in WV. As such, this SOP does not cover the sample site selection process, or sampling plan approval.

This SOP is intended to compliment the SDWIS/State User's Guide.

Purpose

The purpose of this SOP is to explain:

1. Determine and enter DBPR Sample Schedules into SDWIS/State.
2. Enter and maintain FANLs in SDWIS/State.
3. Review DBPR Compliance Decision Support (CDS) reports in SDWIS/State.
4. Enter and maintain DBPR Compliance Schedules in SDWIS/State.
5. Assign violations in SDWIS/State.

6. Enter enforcement actions in SDWIS/State.

This document is meant to be a companion to the existing regulations and guidance documents used by the DBPR Coordinator.

Resources

The DBPR Rule coordinator must have read/write access to SDWIS/State and be assigned the role of Compliance Officer. Because this person acts as a subject matter expert (SME) for the DBPR and is responsible for developing compliance schedules and entry into SDWIS/State, the DBPR coordinator must have completed SDWIS/State training and be familiar violation codes as well as analyte groups and analyte codes.

The SDWIS/State Administrator or a staff member with the SDWIS/State role "SA" should be available to manage and answer questions regarding the data system, as needed.

Required Information/Data

The DBPR coordinator and staff must have access to the following SDWIS/State areas:

1. Inventory.
2. Sampling.
3. Monitoring.
4. Enforcement.
5. Compliance Determination (Setup and Reports).
6. Enforcement Tracking Tool Spreadsheet.

SECTION 1. DBPR Facility Analyte Levels (FANLs)

STEP 1.1 Sample schedules and FANLs must be added must be added according to the type of source water the PWS has and the type of disinfectant the PWS adds. In WV, sample schedules and FANLs have been entered for existing systems.

If a PWS modifies treatment, the existing schedules and FANLs may need to be changed.

For new PWSs:

1. Enter the Maximum Residence Time Sample Point;
2. Add FANLs;
3. Add sample schedules.

Determine the TTHM and HAA5 sample schedule for any new PWSs that add a disinfectant.

Initial sampling frequency:

Stage 1 DBPR TTHM and HAA5-Initial Sampling Schedule					
Groundwater			Surface Water		
Population	Sampling Frequency	# of Samples	Population	Sampling Frequency	# of Samples
<10,000	Each Year	1	<500	Each Year	1
>=10,000	Each Quarter	1	500-999	Each Quarter	1
--	--	--	>=10,000	Each Quarter	4

Sampling location for Stage 1 TTHM and HAA5: the place of maximum residence time in the distribution system. Annual samples must be collected during the month of warmest water temperature.

STEP 1.2

FANLs records must be present in SDWIS/State for each PWS that adds a disinfectant. SDWIS/State uses these records to determine compliance and identify candidate violations. FANL records are present for existing PWS.



If treatment changes or the level that an existing PWS must comply with changes, the CO will need to update the FANL record.
FANLs for New PWS

Treatment: Chlorine or Chloramine Disinfectant									
PWS Type: Community (C) and Non-Transient, Non-Community (NTNC)									
PWS Source Type: Groundwater (GW), Groundwater Under the Direct Influence of Surface Water (GU), and Surface Water (SW)									
Water System Facility	Level Type	Analyte Name	Analyte Code	Level and Unit of Measure	Number of Samples Per Day	Monitoring and Reporting (M&R) Violation Type Code	Treatment Technique (TT) or MCL Violation Type Code	Check MDBP Summaries (Yes/No)	MDBP Summary Type
Distribution System	MAX	CHLORINE	0999	4.0 mg/l	N/A	27 MJ	11	Yes	MRDL
OR									
Distribution System	MAX	CHLORAMINE	1006	4.0 mg/l	N/A	27 MJ	11	Yes	MRDL

FANLs for New PWS (continued)

Treatment: Direct or Conventional Filtration

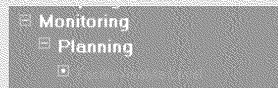
PWS Type: All PWS Types, including: Community (C), Non-Transient, Non-Community (NTNC), and Transient, Non-Community (NC)

PWS Source Type: Groundwater Under the Direct Influence of Surface Water (GU), and Surface Water (SW)

Water System Facility	Level Type	Analyte Name	Analyte Code	Level and Unit of Measure	Number of Samples Per Day	M&R Violation Type Code	TT or MCL Violation Type Code	Check MDBP Summaries (Yes/No)	MDBP Summary Type
Treatment Plant Entry Point	MIN	CARBON, TOTAL	2920	1.0 Ratio	N/A	N/A	46	No	NA
	MAX	CHLORINE DIOXIDE	1008	0.8 mg/l	1	27	N/A	Yes	CLO2
	MAX	CHLORITE	1009	1.0 mg/l	1	27	N/A	Yes	CLO3
Distribution System	MAX	CHLORINE DIOXIDE	1008	0.8 mg/l	N/A	N/A	N/A	No	N/A
	MAX	CHLORITE	1009	1.0 mg/l	N/A	N/A	02	No	N/A

STEP 1.3 Add or change FANLs records in SDWIS/State.

Click "Facility Analyte Level" on the left:




This displays the "Facility Analyte Level Search" screen:

Facility Analyte Level Search

Water System Facility
Water System No. >> ALDERSON WATER
WSF State Assign ID >>

Analyte Level
Analyte Code >>
Control Level Type

STEP 1.4

Select the water system by typing in the Water System No. (PWSID) or click  to select the water system from a list. Additionally you may select the "Analyte Code" and "Control Level Type" to limit the search criteria.

TIP

To select all FANLs for a water system, leave "Analyte Level" and "Control Level" blank.

Below is a list of common FANLs for a surface water system:

Facility Analyte Level Maintenance List							
Water System No.	WSF State Asgn ID	Analyte Co	Control Lev	Level	UOM	Days To Monitor	Samples Re
WV3301315	DS001	0999	MIN	0.001	MG/L	0	0
WV3301315	DS001	0999	MIN	.2	MG/L	31	1
WV3301315	DS001	0999	MAX	4.0	MG/L	0	0
WV3301315	TP001	0100	MAX	5	NTU	31	3
WV3301315	TP001	0100	MAX	1	NTU	31	3
WV3301315	TP001	0100	MAX	1	NTU	31	4
WV3301315	TP001	0100	95P	.3	NTU	31	3
WV3301315	TP001	0100	95P	0.3	NTU	31	4
WV3301315	TP001	2920	MIN	1	RATIO	0	0
WV3301315	TP001	0999	MIN	0.2	MG/L	31	3
WV3301315	TP001	0999	MIN	0.2	MG/L	31	4

STEP 1.5

To change an Analyte Level, highlight the row and click “Edit” “Change” from the menu. This displays the “Facility Analyte Level Maintenance –Change” page:

TIP

If a FANL has been used for compliance, the only change allowed is to the “Begin Date” and “End Date.”

Control Level Types specify what level type the facility must comply with, including:

- MAX – Maximum
- MIN – Minimum
- AVG – Average
- 95P – 95 Percent

Facility Analyte Level Maintenance - Change

Water System Facility

*Water System No. WV 3301315 ALDERSON WATER
*WSF State Asgn ID DS001 DIST SYSTEM/ZONE

Analyte Level

*Analyte Code 0999 CHLORINE
*Begin Date 01/01/2004 End Date
*Control Level Type Minimum *Level 0.001 mg/L

STEP 1.5 "Monitoring Parameters" and "Violation Types" for "Compliance Check" may be changed as necessary:

Monitoring Parameters	
Days to monitor per month	0
Individual filter monitoring required?	
Samples required per day	0

Violation Types for Compliance Check	
Level Violation Type	41 RES DISINFECT CONCENTRATION (SWTR)
M & R Violation Type	36 MONITORING, RTN/RPT MAJOR (SWTR-FILTER)
Check MDBP Summaries	Yes
MDBP Summary Type	DSRD - Distribution RDC

OK Cancel Help

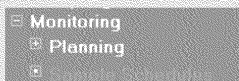


Violation Types must be entered for SDWIS/State to accurately determine compliance.

SECTION 2. Enter DBPR Sample Schedules in SDWIS/State

DBPR sample schedules are used by SDWIS/State for automated compliance determination. SDWIS/State uses DBPR schedules to determine Running Annual Averages (RAA) and Locational Running Annual Averages (LRAA). FANLs are used in conjunction with sample schedules for automated compliance determination. In some cases, sample schedules must be “packaged” or associated for accurate automated compliance determination.

STEP 2.1 Enter DBPR sampling schedules for CTHM (total trihalomethanes) and CHA5 (haloacetic acids).



Narrow the search criteria by selecting a “WSF State Asgn ID” or “Analyte/Analyte Group Code”.

Click to display all current schedules:

A screenshot of a software window titled 'Sample Schedule Maintenance List'. It has a menu bar with 'File', 'Edit', and 'View'. Below the menu bar are three icons: a printer, a floppy disk, and a magnifying glass. To the right of the icons is a 'Menu Items' button. Below the icons is a table with the following data:

Water System No.	WSF State Asgn ID	Water T	Analyte C	Sample C	Sample	Begin Date	End Date	Start M	Day	End M	Day	Vio. Type	Initial Mon Prd Beg
WV3304911	DS001	SW	CHA5	1	RT QT	01/01/2010		0	0	0	0	27	01/01/2010
WV3304911	DS001	SW	CL90	10	RT 3Y	01/01/2002		6	1	9	30	52	01/01/2002
WV3304911	DS001	SW	CTHM	1	RT QT	01/01/2010		0	0	0	0	27	01/01/2010



The only change allowed to a sample schedule is to add the “Effective Period End Date”. This ends the schedule. Compliance will not be determined for this schedule after this date. Usually a schedule is ended because the monitoring frequency has changed. It is good practice to end the schedule at the end of a monitoring period and start the new schedule on the first day of the next monitoring period during which the next sample must be collected.

STEP 2.2 To add a new schedule, click “Edit”, “Add Non-TCR” from the menu.

STEP 2.3

To change a schedule, highlight the row to change and click "Edit", "Change":

Non-TCR Sample Schedule Maintenance - Change

Water System/Facility

*Water System No. WV 3304911 >> Name ADRIAN P S D

*WSF State Asgn ID DS001 >> Name DISTRIBUTION SYSTEM SW

Sample Schedule

***Monitoring Requirement**

Analyte Code >> or

Analyte Group Code CHA5 >> HALOACETIC ACIDS

*Samples Required >> 1 RT = Routine per QT = Quarter Vio. Type 27

Template Count of Skip FED Reportable Contaminant Code

Effective Period

*Begin Date 01/01/2010 >> End Date >> Initial Monitoring Period Begin Date 01/01/2010 >>

*Water System Notified Date >>

Seasonal Collection Period

Start Month/Day 0 / 0

End Month/Day 0 / 0

State Collection Period

Start Month/Day 0 / 0 Sequence Year 0

End Month/Day 0 / 0

STEP 2.4

Add the "Maximum Residence Time" and/or "AVGRES" sample points by clicking "Add" and selecting the sample point from the list.

If the schedule is for an "Initial Distribution System Evaluation" (IDSE), select the ST2IDSE sampling point.

Sampling Point Subschedules			
WSF State Asgn ID	Sampling Point	Location	Count
DS001	MAXRES	MAXIMUM RESIDENCE TI	1

*Substitute Result Indicator:
 Monitoring Assessment:



The "Substitute Result Indicator" should always be "O-Optionally."

"Monitoring Assessment" is what SDWIS/State uses to determine if a schedule is a candidate for increased or decreased sampling. The most common Monitoring Assessment flags used for DBPR schedules are:

- A – Reassess if new data
- I – Increased
- S – Same

If the CTHM and CHA5 schedule is annual or less frequent, enter the month of warmest temperature in the "Seasonal Collection Period":

Seasonal Collection Period			
Start Month/Day	<input type="text" value="7"/>	/	<input type="text" value="1"/>
End Month/Day	<input type="text" value="7"/>	/	<input type="text" value="31"/>

The “Substitute Result Indicator” should always be “O-Optionally.”

“Monitoring Assessment” is what SDWIS/State uses to determine if a schedule is a candidate for increased or decreased sampling. The most common Monitoring Assessment flags used for DBPR schedules are:

- A – Reassess if new data
- I – Increased
- S – Same

If the CTHM and CHA5 schedule is annual or less frequent, enter the month of warmest temperature in the “Seasonal Collection Period”:

Seasonal Collection Period			
Start Month/Day	<input type="text" value="7"/>	/	<input type="text" value="1"/>
End Month/Day	<input type="text" value="7"/>	/	<input type="text" value="31"/>

STEP 2.5

Each SW or GU system that provides conventional filtration must have schedules for TOC and Alkalinity.

Add schedules for raw water TOC and Alkalinity.

- The facility type must be the raw water source (e.g. intake, spring, well, or other source).
- The Analyte Group Code must be “CTOA”.
- The sampling frequency must be monthly or quarterly.

STEP 2.6

Add schedules for finished water TOC:

- The facility type must be a Treatment Plant.
- The Analyte Code (not Analyte Group Code) must be “2920.”
- The sampling frequency must be the same as the raw water “CTOA” schedule.



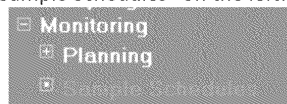
Each treatment plant must have a set of raw and finished TOC schedules.

STEP 2.7

Package raw and finished TOC and Alkalinity schedules.

Raw and finished TOC and Alkalinity schedules must be “packaged” so that SDWIS/State can calculate the DBP Precursor removal ratio.

To package sample schedules, click “Monitoring”, then “Sample Schedules” on the left:




STEP 2.8

Select “Non-TCR” and the “Water System No.” Leave “WSF State Asgn ID” blank.

Sample Schedule Search

Regulating Agency	WEST VIRGINIA		
<input checked="" type="radio"/> Both <input type="radio"/> ICR <input checked="" type="radio"/> Non-TCR			
Water System No.	WV	3301315	>>
Water System Name	ALDERSON WATER		
WSF State Asgn ID			>>

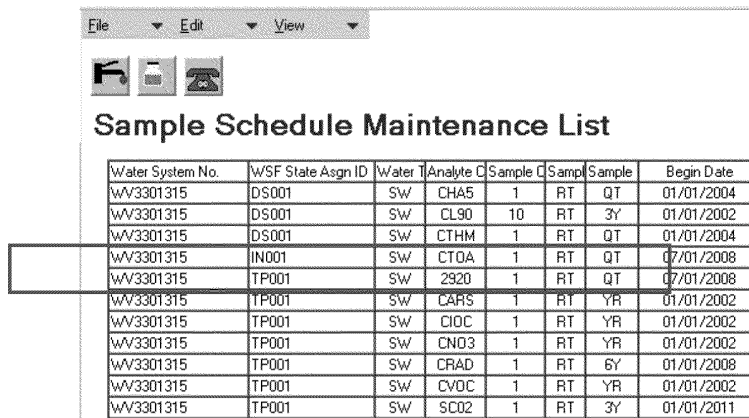
STEP 2.9

Click the  button to display the "Sample Schedule Maintenance List".

STEP 2.10

The Sample Schedule Maintenance List will include the CTOA and 2920 schedules.

Click on the finished water TOC schedule (the 2920 schedule) to highlight the row. From the menu click "Edit" "Package Schedules" to display the "Schedule Package Maintenance List":



Water System No.	W/SF State Asgn ID	Water T	Analyte C	Sample C	Samp	Sample	Begin Date
wV3301315	DS001	SW	CHA5	1	RT	QT	01/01/2004
wV3301315	DS001	SW	CL90	10	RT	3Y	01/01/2002
wV3301315	DS001	SW	CTHM	1	RT	QT	01/01/2004
wV3301315	IN001	SW	CTOA	1	RT	QT	07/01/2008
wV3301315	TP001	SW	2920	1	RT	QT	07/01/2008
wV3301315	TP001	SW	CARS	1	RT	YR	01/01/2002
wV3301315	TP001	SW	CIOC	1	RT	YR	01/01/2002
wV3301315	TP001	SW	CNO3	1	RT	YR	01/01/2002
wV3301315	TP001	SW	CRAD	1	RT	6Y	01/01/2008
wV3301315	TP001	SW	CVOC	1	RT	YR	01/01/2002
wV3301315	TP001	SW	SC02	1	RT	3Y	01/01/2011

STEP 2.11

Click "Edit," "Associate" to display the "Schedule Package Association List. This list contains the raw water TOC and Alkalinity schedules. Click on the appropriate schedule to highlight it:

File
Edit
View

Schedule Package Association List

Menu Items

Water System/Facility

Water System No.	WV3301315	Name	ALDERSON WATER
WSF State Asgn ID	TP001	Name	TREATMENT PLANT

Finished Schedule

Monitoring Requirement

Analyte Code	2920
Samples Required	1 RT per QT

Effective Period

Begin	07/01/2008	End	
-------	------------	-----	--

Raw Schedules

Water System No	WSF State Asgn ID	Analyte/Analyte	Sample Count	Sample Type	Sample R	Begin Date	End Date	
WV3301315	IN001	CTOA	1	RT	QT	07/01/2008		
WV3301315	IN001	CTOA	1	RT	MN	01/01/2004	06/30/2008	

STEP 2.12

Click "Edit, "Select" from the menu to add the raw schedule:

File

Edit

View

Schedule Package Maintenance List

Menu Items

Water System/Facility

Water System No.

WV3301315

Name

ALDERSON WATER

WSF State Asgn ID

TP001

Name

TREATMENT PLANT

Finished Schedule

Monitoring Requirement

Analyte Code

2920

Effective Period

Samples Required

1

RT

per

QT

Begin

07/01/2008

End

Package Type

T-TOC PRECURSOR PACKAGE

Raw Schedules

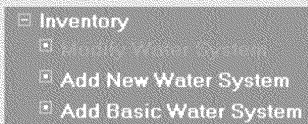
Water System No.	WSF State Asgn ID	Analyte/ Ana	Sample C	Sample Typ	Sample Pe	Begin Date	End Date	Initial Mon P
WV3301315	IN001	CTQA	1	RT	QT	07/01/2008		07/01/


SECTION 3. Add Stage 2 DBPR Schedule Type and Effective Date

STEP 3 The Stage 2 DBPR becomes effective for water system based on population and membership in a combined distribution system. The effective date is when compliance calculations changes from Running Annual Average (RAA) to Locational Running Annual Average (LRAA). The Effective Date corresponds to a "Schedule Category". This is recorded in SDWIS/State as a Water System Indicator.


STEP 3.1 Add "Stage 2 DBP2 Water System Indicator" to specify the "Schedule Category".

Click "Modify Water System" from the menu on the left:



STEP 3.2 From the "Water System Search" page, enter a "Water System No." or click the  button to select the water system from a list.

STEP 3.3

From the "Water System Modification" page, click the  button to display the "Water System Maintenance" page. The "Indicators" box is in the lower right corner:

Indicators

Type	Value	Date	End Date
SSWP	NO	08/10/2009	


1 of 1 rows displayed

Add

Change



Delete




STEP 3.4

Click the  button to display the “Water System Indicator Maintenance –Add Page”:

Water System Indicator Maintenance - Add

Water System		
No.	WV3301315	Name ALDERSON WATER
Federal Type	C	State Type C Federal Primary Source SW

Indicator		
* Type	<NONE>	
Value	<NONE>	Date  End Date 

STEP 3.5 Select “DBP2 – Stage2 DBPR Schedule Category” from the “Type” drop-down list:

Indicator	
* Type	<NONE>
Value	<NONE> SSWP - State Source Water Program OTPR - Outstanding Performer DBP2 - Stage2 DBPR Schedule Category LT2 - Long Term 2 ESWTR Schedule Category

STEP 3.6 Select 1, 2, 3, or 4 from the “Value” drop-down list:

Indicator

* Type: DBP2 - Stage2 DBPR Schedule Category

Value: 1 - 1
<NONE>
1 - 1
2 - 2
3 - 3
4 - 4
NO - No
YES - Yes

Date: 04/01/2012

End Date:

OK Cancel Help

STEP 3.7 Enter the Stage 2 DBPR effective date for the PWS. The Schedule categories are noted in () below. The chart below gives the effective dates:

If you are this type of system	You must comply with subpart V monitoring by: ¹
Systems that are not part of a combined distribution system and systems that serve the largest population in the combined distribution system	
(1) System serving ≥100,000	April 1, 2012.
(2) System serving 50,000-99,999	October 1, 2012.
(3) System serving 10,000-49,999	October 1, 2013.
(4) System serving <10,000	October 1, 2013 if no <i>Cryptosporidium</i> monitoring is required under §141.701(a)(4) or October 1, 2014 if <i>Cryptosporidium</i> monitoring is required under §141.701(a)(4) or (a)(6)
Other systems that are part of a combined distribution system	
(5) Consecutive system or wholesale system	—at the same time as the system with the earliest compliance date in the combined distribution system.

¹The State may grant up to an additional 24 months for compliance with MCLs and operational evaluation levels if you require capital improvements to comply with an MCL.



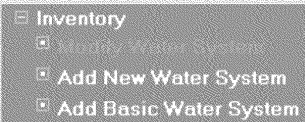
SDWIS/State uses the Date to determine when LRAA and OEL compliance calculations begin and RAA MCL compliance calculations end.


SECTION 4. Add Stage 2 DBPR MCL Extension

STEP 4.1 If an extension to the Stage 2 DBPR MCL was granted it must be entered into SDWIS/State to support automated compliance determination. This is recorded in SDWIS/State as a Water System Facility Indicator.


Add Stage 2 DBP2 MCL Extension Water System Facility Indicator.

Click "Modify Water System" from the menu on the left:



STEP 4.2 From the "Water System Search" page, enter a Water System No. or click the  button to select the water system from a list.

STEP 4.3

From the "Water System Modification" page, scroll down to the "Water System Facility" box. Click  to display the Water System Facility Maintenance List:

File Edit View

Water System Facility Maintenance List


Menu Items

Water System

No. WV/3301315 Name ALDERSON WATER
Federal Type C State Type C Federal Primary Source SW

WSF State Asgn ID	Facility Name	Type	Activity S	Availability	Federal ID No.	Source
IN001	GREENBRIER RIVER INTAKE	IN	A	P	209	Y
DS001	DIST SYSTEM/ZONE	DS	A	P	9749	N
ST001	MUDDY CREEK MOUNTAIN TANK	ST	A	P	14719	N
ST002	MONROE COUNTY NO 1	ST	A	P	14720	N
ST003	MONROE COUNTY NO 2	ST	A	P	14721	N
TP001	TREATMENT PLANT	TP	A	P	3907	N

STEP 4.4 Highlight the "Distribution System" (Type "DS") row and click "Edit", "Change" from the menu to display the "Water System Facility Modification – Change" page.

STEP 4.5 Click the  button in the upper right hand corner to display the "Other Water System Facility Maintenance – Change" page.


STEP 4.6 Scroll to the bottom of the page to the “Indicator” box:

Indicators

Type	Value	Date	End Date
EMER	NO		
EMER	NO		

Number of rows displayed: 2

Add Change Delete

STEP 4.7 Click the  button to display the “Water System Facility Indicator Maintenance-Add” page. Select “LVME- LRAA DBPR2 Subpart V MCL Extension” from the drop-down list.

Indicator

Type: LVME - LRAA DBPR2 Subpart V MCL Extension Value: <NONE>

Date: 03/31/2013 End Date:

OK Cancel Help

STEP 4.8 Enter the date the extension **ends** in the “Date” (not “End Date”).



The start date of the extension is the same as the date recorded in the “DBP2” Water System Indicator.

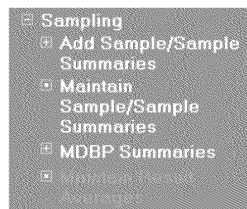
Note: During the extension period MCL violations will continue to be based on the RAA. OELs will not be calculated. Monitoring violations will still be calculated. When the extension period ends, LRAA calculations will start over and OELs will be

Note: During the extension period MCL violations will continue to be based on the RAA. OELs will not be calculated. Monitoring violations will still be calculated. When the extension period ends, LRAA calculations will start over and OELs will be calculated.

STEP 5.1

SDWIS/State calculates LRAAs and uses them to determine MCL and Operational Evaluation Level (OEL) compliance. This calculation is performed when at least three results are present and at least one result is present for the quarter.

To view LRAA and OEL calculations click “Sampling”, “Maintain Result Averages”:




STEP 5.2

Add Water System No. and WSF State Asgn ID. Click the  to select from a list.



Distribution System WSF State Asgn ID is always “DS001”.

Click the  to select the sample schedule.

File Edit View



Sample Schedule Maintenance List

Water System No.	WSF State Asgn ID	Water T	Analyte C	Sample C	Sample	Sample	Begin Date
WV3301315	DS001	SW	1022	10	RT	3Y	01/01/2002
WV3301315	DS001	SW	1030	10	RT	3Y	01/01/2002
WV3301315	DS001	SW	2456	1	RT	QT	01/01/2004
WV3301315	DS001	SW	2950	1	RT	QT	01/01/2004

STEP 5.3

Select the row where analyte code is 2950 for TTHM and 2456 for HAA5. Click "Edit", "Select" from the menu.

Results Averages Search

Regulating Agency Used

WEST VIRGINIA

Schedule Selection Criteria

Water System No. WV 3301315 ALDERSON WATER

WSF State Asgn ID DS001 DIST SYSTEM/ZONE


Sample Schedule

Analyte 2950 TTHM

Monitoring Period

Begin Date End Date Duration Name

STEP 5.4

Click the  button to display the Results Averages Maintenance List:

File Edit View							
Results Averages Maintenance List							Menu Items
Water System No.	WSF State Asgn ID	Analyte C	Monitoring Period Na	MP Average	MP UQM	Cmpl. Av	Compliance Average
WV3301315	DS001	2950	3Q2012	32.1	UG/L	LRAA	17
WV3301315	DS001	2950	2Q2012	23	UG/L	RAA	18
WV3301315	DS001	2950	2Q2012	23	UG/L	LRAA	18

STEP 5.5

Click "Edit", "Change" from the menu to display the "Results averages Maintenance page. Scroll to the bottom to view the "Monitoring Period Average" and "Compliance Averages" boxes:

Monitoring Period Average

Average
Number of Results Used

MCL Compliance Method
Total Days

Date Reported
Precursor Achieved Removal Ratio

Comments

Compliance Averages

Type	Average	UDM	Sampling Point	Number of Res	Precursor Achieved Removal	BIN
RAA	18	UG/L		4		
LRAA	18	UG/L	MAXRES	4		

Change

TIP Since SDWIS/State makes these calculation during Compliance Determination Setup, these values seldom need to be changed.

Comments may be added to the “Comments” box.


STEP 5.6

To change a Compliance Average, highlight the row and click the

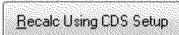
Change

 button to display the “Compliance Average Maintenance” page. Scroll down to the “Compliance Average” box. Make appropriate changes.

State of West Virginia Department of Health and Human Resources
Bureau for Public Health Office of Environmental Health Services

Compliance Average		Type	LRAA
Average	<input type="text" value="18"/>	<input type="text" value="ug/L"/>	Number of Results Used <input type="text" value="4"/>
Date Reported	<input type="text"/>		Precursor Achieved Removal Ratio <input type="text"/> BIN <input type="text"/>
Comments <div><div></div></div>			
Record updated by CDSSETUP on 06/28/2012:20:01:53			
<div><div>OK</div><div>Recalc Using CDS Setup</div><div>Cancel</div><div>Help</div></div>			
<div><div>View Additional Compliance Data</div></div>			

STEP 5.7

Click  to include the changed value the next time CDS Setup runs.

STEP 5.8

Click the  button to save the record.

SECTION 6. OEL Compliance Determination

STEP 6.1 For the first three quarters, SDWIS/STATE calculates LRAA using the near equivalent of four in the denominator unless no result was obtained in one of the quarters.

Below is an example of an OEL Compliance Average Type taken from Slide 6, SDWIS/State 3.1 Track Subpart V Compliance Part 2 (SAIC):

File Edit View

Results Averages Maintenance List

D	Analyte Code	Monitoring Period Name	MP Average	MP UOM	Crpt. Avg. Type	Compliance Average	Compliance Average UOM	# of Results Used for MPA	Total Days	# of Results Used for MCL Value
	2950	4Q2011		MG/L	RAA	0.087	MG/L	0	92	12
	2950	4Q2011			OEL	← (1)	MG/L	0	0	0
	2950	4Q2011			OEL		MG/L	0	0	0
	2950	4Q2011			OEL		MG/L	0	0	0
	2950	4Q2011			OEL		MG/L	0	0	0
	2950	4Q2011			LRAA	0.088 ← (2)	MG/L	0	0	3
	2950	4Q2011			LRAA	0.095	MG/L	0	0	3
	2950	4Q2011			LRAA	0.083	MG/L	0	0	3
	2950	4Q2011			LRAA	0.083	MG/L	0	0	3
	2950	3Q2011	0.0913	MG/L	RAA	0.080	MG/L	4	92	16
	2950	3Q2011	0.0917	MG/L	OEL	0.089 ← (3)	MG/L	1	92	3
	2950	3Q2011	0.0962	MG/L	OEL	0.095	MG/L	1	92	3
	2950	3Q2011	0.0806	MG/L	OEL	0.082	MG/L	1	92	3
	2950	3Q2011	0.0965	MG/L	OEL	0.086	MG/L	1	92	3
	2950	3Q2011	0.0917	MG/L	LRAA	0.079	MG/L	1	92	4
	2950	3Q2011	0.0962	MG/L	LRAA	0.085 ← (4)	MG/L	1	92	4
	2950	3Q2011	0.0806	MG/L	LRAA	0.078	MG/L	1	92	4
	2950	3Q2011	0.0965	MG/L	LRAA	0.076	MG/L	1	92	4
	2950	2Q2011	0.104	MG/L	RAA	0.057	MG/L	4	91	12

STEP 6.2 When an OEL exceeds the MCL, SDWIS/State issues a CDS Setup Advisory message and creates an OEL Compliance Schedule. At the time this SOP was written, WVDOH did not have any OEL results averages or OEL Compliance Schedules entered into SDWIS/State.¹

The CDS Setup Advisory report should be reviewed every day.

¹ As of December 2013. WV or R3 should investigate.

STEP 6.3 Click “Compliance Determination”, “Post-Compliance Decision Support Processing”, “Review Reports, Logs and Advisories” on the left to display the “Post-Compliance Decision Reports List” page:



STEP 6.4 To filter the list, select “ADV-CDS Setup Advisory Report” from the “Report Type” drop-down list, then click :

A screenshot of the "Post-Compliance Decision Reports List" page. The page has a title bar and a search section. The search section includes a search bar, a "Report Type" drop-down menu set to "ADV - CDS Setup Advisory Report", a "User ID" text box, and a "Generation Date Range" section with "Begin Date" and "End Date" text boxes and calendar icons. At the bottom of the search section are "Search", "Clear", "Close", and "Help" buttons.

STEP 6.5 Click on the blue links to display the report:

File	User ID	Date	Report Type	File Type
CDSETUP_ADV_20131229_200937.pdf	CDSETUP	12/29/2013	ADV	pdf
CDSETUP_ADV_20131229_200735.pdf	CDSETUP	12/29/2013	ADV	pdf
CDSETUP_ADV_20131229_200053.pdf	CDSETUP	12/29/2013	ADV	pdf
CDSETUP_ADV_20131229_195613.pdf	CDSETUP	12/29/2013	ADV	pdf

STEP 6.6 ADV-CDS Setup Advisory Report:

CDS Setup Advisory Report Messages

LOG IS NUMBER : 14
LAUNCHED BY : SDWISADM
CDS_HIST_DATE : 01/01/2002
CDS SETUP START: 12/29/2013 8:00 PM
CDS SETUP END : 12/29/2013 8:00 PM

PROCESS CALCULATE MCL VALUES

Message #25: The following CDS Candidate MCL Violation was created . Use the Migrate Candidate Violations component to process the violation.

PWS NUMBER	PWS NAME	PWS TYPE	POPULATION	FED PRIM SRC
WV3301315	ALDERSON WATER	C	2680	SW

Sampling Point

WSF ST	SAMPLING
ASGN ID	PT ID DESCRIPTION

DS001

CDS Candidate Violation

WSF ST	ANALYTE	VIO TYPE	ST VIO PRD	ST VIO PRD
ASGN ID	CODE	CODE	BEGIN	END
DS001	2950	02	04/01/2013	06/30/2013

PWS NUMBER	PWS NAME	PWS TYPE	POPULATION	FED PRIM SRC
WV3301315	ALDERSON WATER	C	2680	SW

Sampling Point

WSF ST	SAMPLING
ASGN ID	PT ID DESCRIPTION

DS001

STEP 6.7

Below is an example of the "Compliance Schedule Maintenance – Change" page taken from Slide 13, [SDWIS/State 3.1 Track Subpart V Compliance Part 2 \(SAIC\)](#):

Compliance Schedule Maintenance - Change

Water System

*+ No. KS 2000119 >> Name PUBLIC WHOLESALE WSD 5

Compliance Schedule

No. 8

State Asgn ID No.

*Regulating Agency KANSAS DEPT OF HEALTH AND ENVIRONMENT >>

Compliance Officer >>

Schedule Type OEL - Evaluation of disinfection system due to an exceedance of an OEL v

Effective Date 06/30/2011 c Status Final v

Closed Date c Status Date 04/24/2012 c

Description v

Compliance Schedule Activities

Name	Due Date	Achieved Date	Condition (Derived)	Default Vio. Type
SUBMIT WRITTEN HAAS OEL REPORT	09/28/2011		Overdue	35

SECTION 7. MCL Compliance Determination

STEP 7.1

When a quarterly LRAA exceeds the MCL, SDWIS/State creates a candidate MCL violation and issues a CDS Setup MCL Advisory. At the time this SOP was written, WVDOH did not have any LRAA violations in SDWIS/State.



CDS Setup Advisory reports should be reviewed every day and MCL violations should be migrated into SDWIS/State. High chlorine dioxide and chlorite results are identified on this report and should be reviewed each day as well.

SDWIS/STATE:

- Creates separate MCL violations for each sampling point.
- Associates violation to the sampling point.
- Sets the violation's "Number of Exceedences" to 1.
- Sets the violation's "Analysis Result" to the LRAA value & unit of measurement.

If **more than one violation** is created for the same water system for a given quarter, the violations must be combined into one violation or packaged so that only one violation is reported to SDWIS/Fed.

When an LRAA exceeds the MCL and the schedule is **NOT quarterly**, SDWIS/State does not create a candidate MCL violation. SDWIS/State does issue a CDS Setup Advisory.

To use the high annual/triennial result in the next quarterly calculations:

- Close the annual/triennial schedule on the last day of the previous quarter;
- Set the Monitoring Assessment field to "SP-Skip Final Monitoring Period".

See below for an example.

STEP 7.1
(CONT.)

The following example was taken from Slide 25, SDWIS/State 3.1 Track Subpart V Compliance Part 2 (SAIC):

Non-TCR Sample Schedule Maintenance - Change

Water System/Facility	
* Water System No. <input type="text" value="KS1"/> <input type="text" value="2010504"/>	Name <input type="text" value="BEVERLY, CITY OF"/>
* WSF State Asgn ID <input type="text" value="DS1"/>	Name <input type="text" value="DISTRIBUTION"/> GW

Sample Schedule	
*Monitoring Requirement Analyte Code <input type="text"/> or Analyte Group Code <input type="text" value="DBP2"/> <input type="text" value="DBP S2 SUBPART V"/> *Samples Required <input type="text" value="1"/> <input type="text" value="RT = Routine"/> per <input type="text" value="3Y = 3 Years"/> Vio. Type <input type="text" value="27"/> Template Count of <input type="text"/> <input type="button" value="Skip"/> FED Reportable Contaminant Code <input type="text"/>	
Effective Period *Begin Date <input type="text" value="01/01/2011"/> End Date <input type="text" value="06/30/2011"/> Initial Monitoring Period Begin Date <input type="text" value="01/01/2011"/> Water System Notified Date <input type="text"/>	
Seasonal Collection Period Start Month/Day <input type="text" value="7"/> / <input type="text" value="1"/> End Month/Day <input type="text" value="9"/> / <input type="text" value="30"/>	State Collection Period Start Month/Day <input type="text" value="0"/> / <input type="text" value="0"/> Sequence Year <input type="text" value="0"/> End Month/Day <input type="text" value="0"/> / <input type="text" value="0"/>

Sampling Point Subschedules			
WSF State Asgn ID	Sampling Point	Location	Count
DS1	MAXRES1	301 S MURRAY	1
<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>			

*Substitute Result Indicator <input type="text" value="0 = Optionally"/>	Monitoring Assessment <input type="text" value="SP - Skip Final Monitoring Period"/>
--	--

In this example, the sample collected on July 20, 2012 was high and the compliance officer wants that result to be used in the calculation of LRAA so the officer closes the schedule at the end of the previous quarter, i.e., 06/30/2012.

And sets the Monitoring Assessment to 'SP - Skip Final Monitoring Period'

STEP 7.2

Begin the new quarterly schedule on the first day of the quarter in which the sample was collected. The following example was taken from Slide 13, SDWIS/State 3.1 Track Subpart V Compliance Part 2 (SAIC):

Non-TCR Sample Schedule Maintenance - Add

Water System/Facility			
*Water System No.	KS	2010504	>> Name BEVERLY, CITY OF
*WSF State Asgn ID	DS1	>> Name DISTRIBUTION	

Sample Schedule			
*Monitoring Requirement Analyte Code <input type="text"/> >> or Analyte Group Code DBP2 >> DBP S2 SUBPART V *Samples Required >> 1 RT = Routine per QT = Quarter Vio. Type 27 Template Count of <input type="text"/> Skip FED Reportable Contaminant Code DBP2			
Effective Period *Begin Date 07/01/2011 End Date <input type="text"/> Initial Monitoring Period Begin Date 07/01/2011 Water System Notified Date <input type="text"/>		Start the quarterly schedule on the first day of the quarter in which the high annual/triennial result was collected.	
Seasonal Collection Period Start Month/Day 7 / 1 End Month/Day 7 / 31		State Collection Period Start Month/Day 0 / 0 Sequence Year 0 End Month/Day 0 / 0	

Sampling Point Subschedules			
WSF State Asgn ID	Sampling Point	Location	Count
DS1	MAXRES1	301 S MURRAY	1

STEP 7.3

Process candidate violation into SWIS/State.

Click “Compliance Determination”, “Post-Compliance Decision Support Processing”, “Migrate CDS Candidate Violations” on the left:

- ▢ Compliance Determination
 - ▢ TCR Compliance Determination
- ▢ Compliance Decision Support
- ▢ Post-Compliance Decision Support Processing
 - ▢

STEP 7.4




The image below displays the “CDS Candidate Violation Search” page:

CDS Candidate Violation Search

* Issuing Agency
Issuing Agency >>

Violation Type
Violation Type >>

Analyte/Analyte Group
Analyte Code >> TTHM
Analyte Group Code >>

Monitoring Period
Begin Date  Duration 
End Date  Mon. Period >>

Fed Reportable Cont. Code
Fed Reported Cont. Code

Click the  button.

STEP 7.5

The "CDS Candidate Violation Migration List" is displayed.

CDS Candidate Violation Migration List									
Water System No.	WSF State Asgn ID	Vio. Type	Analyte Code/ A	State Violation Pe	State Violation Pe	Fed Violation Peni	Fed Violation Peni	Violati	
WV3301315	DS001	02	2950	10/01/2012	12/31/2012	10/01/2012	12/31/2012	MCL	
WV3301315	DS001	02	2950	07/01/2013	09/30/2013	07/01/2013	09/30/2013	MCL	
WV3301315	DS001	02	2950	07/01/2012	09/30/2012	07/01/2012	09/30/2012	MCL	
WV3301315	DS001	02	2950	04/01/2013	06/30/2013	04/01/2013	06/30/2013	MCL	
WV3301315	DS001	02	2950	01/01/2013	03/31/2013	01/01/2013	03/31/2013	MCL	
WV3301315	DS001	02	2950	04/01/2012	06/30/2012	04/01/2012	06/30/2012	MCL	

STEP 7.6

Highlight the violations to migrate. From the menu click "Edit", "Migrate as Validated". The following pop-up window will be displayed:

All selected CDS candidate violations will be migrated with the following government agency as the issuing agency and, if entered, year, status reason and comments.

The selected violation(s) will be migrated with a status of Validated.

* Issuing Agency >>

Violations to be Migrated with Year

Status Reason

Comments

OK Cancel Help

Click the  button.



STEP 7.7


After clicking the  button, a confirmation window will be displayed:



Migration of CDS Candidate Violation is complete.

CDS Candidate Violations selected: 2

Violations created: 2






If the newly migrated violations do not need to be packaged, click the  button. To package the newly migrated violations, click the  button.


STEP 7.8

The "Violation Maintenance List" page is displayed with the newly migrated violations. To package the violations, highlight each row that should be reported to SDWIS/Fed as one violation:

File Edit View

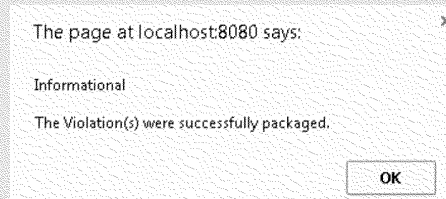
  

Violation Maintenance List



Violation Year	FedRep ID	Status	Vio. Type	Tier	Analyte Cd	State Vio Prd Begin	State Vio Prd End	Water System No.	Water
2014	616715	V	02	2	2950	01/01/2013	03/31/2013	WV3301315	ALDE
2014	616714	V	02	2	2950	04/01/2012	06/30/2012	WV3301315	ALDE

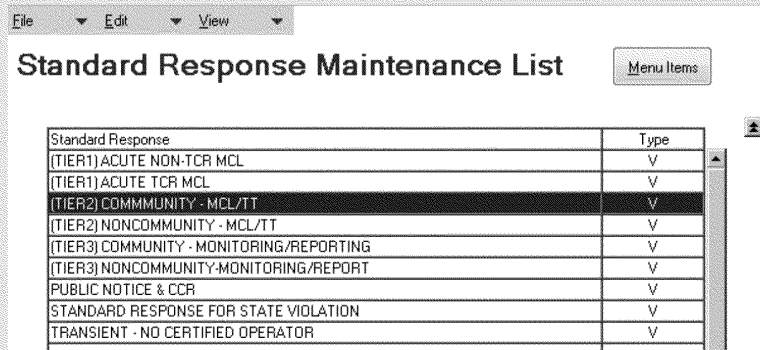
STEP 7.9 Click "Edit", "Package" from the menu. The following pop-up window will appear:



Click the  button.

STEP 7.10 Click "Edit", "Apply Standard Response" from the Menu.

STEP 7.11 The "Standard Response Maintenance List" page will be displayed:



Standard Response	Type
(TIER1) ACUTE NON-TCR MCL	V
(TIER1) ACUTE TCR MCL	V
(TIER2) COMMUNITY - MCL/TT	V
(TIER2) NONCOMMUNITY - MCL/TT	V
(TIER3) COMMUNITY - MONITORING/REPORTING	V
(TIER3) NONCOMMUNITY-MONITORING/REPORT	V
PUBLIC NOTICE & CCR	V
STANDARD RESPONSE FOR STATE VIOLATION	V
TRANSIENT - NO CERTIFIED OPERATOR	V

STEP 7.12

Click on the appropriate standard response to highlight the row. Click "Edit", "Select" to apply the standard response:

Do you want to associate this Standard Response to these Violations?

Standard Response Name (TIER2) COMMUNITY - MCL/TT

Water System No.	Violation Type	Year	FedRep ID	State Vio Prd Begin Date	State Vio Prd End
WV3301315	02	2014	616716	07/01/2013	09/30/2013
WV3301315	02	2014	616715	01/01/2013	03/31/2013

Yes No

Click the  button to confirm the standard response.

SECTION 8. Monitoring and Reporting Compliance Determination

STEP 8.1 SDWIS/State evaluates M&R compliance for Stage 1 DBPR schedules if present as well as Stage 2 DBPR schedules.

Click “Compliance Determination”, “Compliance Decision Support”, “Water Treatment Compliance Report” on the left:

- [-] Compliance Determination
 - [+] TCR Compliance Determination
- [-] Compliance Decision Support
 - [+] Results Alert Report
 - [+] Chem/Rad/State M/R Compliance Report
 - [+] Lead & Copper Rule Compliance Report
 - [+] Treatment Compliance

STEP 8.2 This displays the “Water Treatment Compliance Reports” page:

The screenshot shows a web form titled "Water Treatment Compliance Reports". It contains three main sections: a list of reports to select, a section for the regulating agency and water system, and a section for the monitoring period. Annotations with arrows point to specific fields: one points to the "Stage 1/2 TTHM/HAA5 M/R" checkbox, and another points to the "Monitoring Period/Applicable Period End Date Range" section.

Water Treatment Compliance Reports

*** Select one or more reports to run**

<input type="checkbox"/> Entry Point RDC (Federal)	<input checked="" type="checkbox"/> Stage 1/2 TTHM/HAA5 M/R
<input type="checkbox"/> Entry Point RDC (State)	<input type="checkbox"/> DBP Precursors
<input type="checkbox"/> Distribution RDC (Federal)	<input type="checkbox"/> Bromate/Bromide M/R
<input type="checkbox"/> Distribution RDC (State)	<input type="checkbox"/> Chlorine/Chloramine MRDL
<input type="checkbox"/> Turbidity	<input type="checkbox"/> Entry Point Chlorine Dioxide/Chlorite
<input type="checkbox"/> LT2 Source Water M/R	<input type="checkbox"/> Distribution Chlorine Dioxide/Chlorite
<input type="checkbox"/> LT2 Bin Report	<input type="checkbox"/> Stage 2 IDSE M/R
<input type="checkbox"/> GWR Assessment M/R	<input type="checkbox"/> TTHM/HAA5 Support Report
<input type="checkbox"/> GWR Additional M/R	<input type="checkbox"/> GWR Triggered M/R

*** Regulating Agency/Water System**

Regulating Agency:

Water System No.:

*** Monitoring Period/Applicable Period End Date Range**

Between: and:

Annotations:

- Use the "Stage 1/2 TTHM/HAA5 M/R" compliance check for Subpart V M/R compliance determination. If there are both Subpart L and Subpart V schedules in the period selected, both will be checked.
- The End Date Range selects periods to check based on the Applicable Period End Date. For triennial schedules, the Applicable Period End Date = the Seasonal Collection Period End Month & Day plus the last year of the 3-year monitoring period (e.g., 8/31/2011 for 2009 - 2011 period with Seasonal Collection Period of 8/1 - 8/31).

Click to check the report(s) to run and add the “Monitoring Period/Applicable Period Date Range”. Click to run the report.

STEP 8.3 Review the Water Treatment Compliance report. If results are missing in SDWIS/State, SDWIS/State will calculate a candidate violation.

- Add any missing results.
- Wait until CDS Setup runs the next time.
- Review CDS Setup advisory messages.
- Run Water Treatment Compliance Report again.

Repeat these steps until the Water Treatment Compliance Report contains only valid violations.

STEP 8.4 Migrate candidate M&R violations and apply the standard response as described in the **SECTION 7**.

This report should be run monthly and quarterly, and candidate violations migrated into SDWIS/State.

STEP 8.5 Water Treatment Compliance Report:

Water Treatment Compliance	
Report Run Time Stamp: 12/30/2013 07:18:30 AM	Report Run User ID: SDWISADM
<u>Selection Criteria</u>	
Regulating Agency:	Monitoring Period/Applicable Period End Date Range:
WEST VIRGINIA	07/01/2011 to 09/30/2011
Compliance Checks Selected:	
Stage 1/2 TTHM/HAA5 M/R Check	
Errors/Advisories:	
Analyte group DD01 contains analytes other than those for which compliance is being determined. If there are sample schedules with this Analyte group, Monitoring and Reporting compliance will not be determined.	



The advisory message shown above does not require any action.

STEP 8.6

Candidate M&R and TT for Stage 1 /2 TTHM/HAA5 violations are displayed:

Candidate M/R and TT Violations				
PWS Name	WSF Name	No. of	Related	
ID-Status-Type-Fed Source-Pop-Act. Date	ID-Status-Type-Avail.-Water Type-Act. Date	Results	Sample	
Vio. Type Analyte/Analyte Group	State Violation Period		Schedule	
Comments	Federal Violation Period		Info	
ALLIANT TECH SYSTEMS INC				
	DISTRIBUTION SYSTEM		01/01/2004 to / /	
WV9929007-A-WTNC-GU-1,600-09/01/1978	DS001-A-DS-P-GU-09/01/1978	0	1 RT per QT	
27 MJ CTHM	3Q2011 (07/01/2011 to 09/30/2011)			
TRICHALOMETHANES	07/01/2011 to 09/30/2011			
ALLIANT TECH SYSTEMS INC				
	DISTRIBUTION SYSTEM		01/01/2004 to / /	
WV9929007-A-WTNC-GU-1,600-09/01/1978	DS001-A-DS-P-GU-09/01/1978	0	1 RT per QT	
27 MJ CHA5	3Q2011 (07/01/2011 to 09/30/2011)			
HALOACETIC ACIDS	07/01/2011 to 09/30/2011			

Appendix A: Primary DBPR Acronyms and Definitions

ABBREVIATION	DESCRIPTION
Community Water System (CWS)	A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.
Consumer Confidence Reports (CCR)	The Consumer Confidence Rule requires public water suppliers that serve the same people year round (community water systems) to provide consumer confidence reports (CCR) to their customers.
Compliance Decision Support (CDS)	This is the area of SDWIS/State that provides information to Compliance Officers regarding sample analytical results, sample summaries, sample schedules, and compliance schedules.
Compliance Officer (CO)	Responsible for developing compliance schedules and data entry into SDWIS/State. Must have completed SDWIS/State training.
Disinfectant and Disinfection Byproducts Rules (DBPRs)	Includes Stage 1 and Stage 2 Disinfectants and Disinfection Byproducts Rules that reduce exposure to disinfection byproducts for customers of community water systems and non-transient non-community systems, including those serving fewer than 10,000 people, and add a disinfectant to the drinking water during any part of the treatment process.
Haloacetic Acids (HAA5)	<p>A group of chemicals that are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.</p> <p>HAA5 = Sum of Monochloroacetic Acid (MCAA), Dichloroacetic Acid (DCAA), Trichloroacetic Acid (TCAA), Monobromoacetic Acid (MBAA) and Dibromoacetic Acid (DBAA).</p>
Maximum Contaminant Level (MCL)	Maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

National Primary Drinking Water Regulations (NPDWR)	National Primary Drinking Water Regulations (NPDWRs or primary standards) are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water. Visit the list of regulated contaminants with links for more details.
Non-Transient, Non-Community Water System (NTNCWS)	A public water system that is not a community water system and regularly serves at least 25 of the same persons during a minimum of at least 6 months of each year.
Public Water Supply (PWS)	A system that provides piped water for human consumption, which has at least 15 service connections or regularly serves an average of at least 25 individuals daily for at least 60 days of the year. It includes: 1) the collection, treatment, storage, and distribution facilities operated and used by the system, and 2) any collection or pretreatment storage facilities not under the control of the system, but which it primarily uses.
Return to Compliance (RTC)	Following a violation, a system has completed the necessary actions to be in compliance with the National Primary Drinking Water Regulations.
Safe Drinking Water Information System (SDWIS)	Contains information about public water systems and their violations of EPA's drinking water regulations. Used by West Virginia Department of Health and Human Services for a variety of purposes, including to: enter and maintain sample schedules, review analytical results, migration of violations, enter enforcement actions, enter and maintain compliance schedules, and view compliance reports.
Trihalomethanes (TTHM)	A group of four chemicals that are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The trihalomethanes are chloroform, bromodichloromethane, dibromochloromethane, and bromoform.
Transient Non-community Water Systems (TNCWSs)	Non-community water system that does not regularly serve at least 25 of the same persons over six months per year.
West Virginia Department of	Primary enforcement authority for the federal DBPR Rules.

*State of West Virginia Department of Health and Human Resources
Bureau for Public Health Office of Environmental Health Services*

Health and Human Services (WVDHHR)	
---------------------------------------	--